

2009 Draft 401 Certification for Marina Yacht Club
Response to Public Comments

After the September 25, 2009 draft certification was issued for public comment, the project was significantly changed to further protect water quality. The contaminated sediments that were to be stored in a lined confined disposal facility on Blackwell Island will now be hauled to a commercial waste disposal facility. The lesser contaminated sediments (Category 2) that were to be stored in an unlined confined disposal facility on the island, will now be placed in a thin layer across the construction site (approximately 16 acres) at an elevation of approximately 6 feet above the summer pool. This design will keep the contaminated sediments dry under most conditions which greatly reduces the potential for metals to mobilize. They will also be sandwiched between native clean dredged sediments and no imported fill will be placed over the Category 2 layer unless it is approved by DEQ. There will be at least a 20 foot setback of Category 2 sediments from any water body.

Another major change to the application is that wetland credits will be purchased from the Valencia Wetland Bank rather than constructing wetlands on-site.

Other changes and clarifications to the certification are described below:

1. Several comments requested independent long-term monitoring to assure compliance with 401 certification conditions that fall outside of the construction phase.

Response:

See revision of Certification condition #38. The Operating and Maintenance Plan (O&M Plan) is required to address the long term need for monitoring and maintenance of the lakebed liner and assurances that it will be done. It's provisions begin when provisions of the Construction Quality Assurance Plan end. Long term monitoring of contaminated sediments is no longer required due to the change in design.

2. One commenter suggested that we monitor the Spokane River to determine if the confined disposal facilities (CDFs) are leaking.

Response:

Since there are no longer any CDFs on the project, monitoring will occur during construction and includes the Spokane River.

3. Independent monitoring is needed to confirm that best management practices are correctly installed, such as silt fence, silt curtain and cofferdams.

Response:

See revised certification #37. The Construction Quality Assurance Plan (CQAP) is required to ensure that DEQ approved plans and specifications are constructed correctly on the ground and how certification conditions will be met. The 401 certification currently has many restrictions and requirements for the selection and installation of silt curtains and cofferdams. Periodic monitoring of water quality during construction will also provide extra assurance that both are functioning properly. There are no construction related best management practices authorized for this project that could be considered experimental or pilot technologies.

4. It was suggested that during installation and at the end of each construction season, the lakebed and CDF liners be monitored by an independent third party.

Response:

See revised conditions #36, 37 and 38. This type of assurance will be included as part of the Construction Quality Assurance Plan (CQAP). In addition, we are requiring engineering plan and specification review and approval before the project begins. The Plan and Specification process requires plans be prepared and stamped by a professional engineer. The professional stamp provides that this project is designed per a standard of quality used throughout the U.S. The stamped plans are then reviewed, modified, approved or disapproved by DEQ engineering staff. In addition, final "as-built" plans are required to establish a record of exactly what was constructed, where and how. This process is the same one DEQ uses to regulate the construction and operation of drinking water and wastewater treatment plants and solid waste landfills. We believe the combination of plan and specification approval and provisions of the CQAP will result in a high quality finished product that is maintained long term per the DEQ approved Operation and Maintenance Plan. There are no longer any Confined Disposal Facilities liners associated with this project.

5. Questions related to boat pump out facilities are best answered by Panhandle Health District (PHD). PHD has stated that if Idaho Department of Lands categorizes this project as a "commercial marina" then the rules under IDAPA 41.01.01.200.02 apply which then require a pump out facility. PHD is the agency that administers those rules.
6. There has been some confusion about the similarities and differences of the East Mission Flats Waste Repository (EMF) and the Marina Yacht Club (MYC) confined disposal facilities. Since this project no longer has confined disposal facilities there is no need to compare the two projects.

7. There has been concern expressed that six years is too long to complete this project.

Response:

From a water quality perspective, we believe that a slow and cautious approach to this complex project is good. It gives the contractors time to start only what they can comfortably finish in a construction season and improves the final product as methods are fine tuned each construction season.

8. A commenter questioned why the inconclusive results of the hydro-geological studies completed for this project by the applicant were not addressed in the certification.

Response:

These studies were done when the project proposal was very different from the current application. Major changes to the project greatly reduce the risk of aquifer degradation so there was no reason to further analyze these studies.

9. A suggestion was made to (1) use the enhanced monitoring plan for the East Mission Flats Waste Repository (EMF) to develop a similar plan for the Marina Yacht Club project. Specifically, the commenter suggested (2) to monitor soil saturation within the repository and the repository effects on ground water and surface water quality. The commenter also suggested (3) DEQ set regulatory limits for the aquifer and river and (4) place restrictions on future construction.

Response:

(1) At your suggestion, we did review the EMF enhanced monitoring plan, however the most recent revision of the MYC application no longer includes the creation of repositories (confined disposal facilities). By hauling the most highly contaminated sediments to a commercial landfill the applicant has greatly reduced the complexity of this project. By placing the Category 2 sediments in a thin layer high in the island profile, the risks of mobilization are also greatly reduced. The sediments are only subject to wetting during 10 year flood events or greater, they are sandwiched between two layers of freely draining native sediments and they will only have native sediments or thoroughly tested imported fill placed on top to prevent potential changes in geochemistry from unknown sources of imported fill. We have also required a note be placed on the deed showing the location of the Category 2 sediments (condition #39).

(2) See response to question #2 and Table 1 in certification regarding the request for river monitoring.

(3) Regulatory limits for surface and ground water resources are set by state law.

(4) At the applicant's suggestion, we requested that the Idaho Department of Lands (IDL) place a condition on their lakebed lease for this project that would require proof that the lakebed liner was being maintained per DEQ's Operating and Maintenance Plan (condition #38) during every lease renewal. IDL has responded favorably to that suggestion. Because of changes in the application, deed restrictions were not determined to be necessary, however, a note will be placed on the deed to show the location of the Category 2 sediments (condition #39).

10. Concern was expressed about the potential for mobilization of metals that would drift downstream and become a liability for others.

Response:

There are two ways metals from the Category 2 sediments can move downstream, attached to sediment particles or dissolved in water. This could happen in two ways:

- Flood waters or some other disaster could erode away the fill over the top and sides of the thin layer of Category 2 sediments, exposing them and transporting them downstream. This is a very unlikely scenario since the property will be raised to ½ foot above the 100 year flood height (2136.5') which prevents flood waters from overtopping the island and infiltrating down to Category 2 sediments. There will also be 20 feet of clean fill along the lateral edge of the Category 2 sediments at the elevation reached by a 100 year flood. This buffer combined with the typically rapid receding of flood waters greatly reduces the chance that Category 2 materials will become saturated. The slope and top of the fill has been designed to withstand the velocity of flood waters that could occur over this site.
- Metals can also move by becoming dissolved in water. There are certain conditions that cause metals to disassociate from soil particles. Conditions such as low oxygen, changes in pH, or the addition of some other substance such as organic material or elements such as phosphorus, can trigger chemical reactions under certain conditions, that may release the metals. Periodic extended saturation can also complicate the chemical environment in metals contaminated sediments. These conditions are highly unlikely to occur due to the current design which has the following safeguards:

To prevent a change in the geochemical environment, no imported fill will be placed above the Category 2 layer unless it is approved by DEQ. The contaminated sediments will be placed at an elevation of 2131 feet (or

higher) which is above the current island elevation, moving them out of the reach of ground water. The contaminated sediments are sandwiched between two layers of freely draining native sediments composed primarily of sand and gravel, allowing storm and flood waters to percolate quickly through this layer so it doesn't remain saturated for extended periods of time.

11. One commenter was concerned that there was no monitoring of the Rathdrum Prairie Aquifer.

Response:

Monitoring wells, already constructed on Blackwell Island for the purpose of this project, will be part of the monitoring network during construction (see certification Table 1). If problems are identified based on this monitoring, remedial actions will be triggered long before the Rathdrum Prairie Aquifer (Aquifer) becomes contaminated enough to detect.

12. There is no long-term monitoring of the engineered aspects of the confined disposal facilities.

Response:

Confined disposal facilities are no longer part of this project. The lakebed liner will have long term care (condition #38).

13. Another comment informs DEQ that we did not provide a requirement for independent monitoring of the sorting of contaminated sediments during excavation to determine where they will be located.

Response:

We have added a condition to the certification (#35.) that requires the applicant to demonstrate to DEQ the accuracy of the x-ray fluorescence (XRF) instrument and how it will be used to sort contaminated sediments. Assurance that it will be operated correctly and that sediments are sorted accurately is required as part of the Construction Quality Assurance Plan (condition #37.).

14. We were requested to require metals be reported as total concentrations rather than just dissolved.

Response:

The Idaho Water Quality Standards sets limits for the concentration of dissolved metals, not total concentrations, for surface waters of the state. Metals concentrations in ground water monitoring wells will be reported in total and dissolved concentrations (revised Figure 4.3).

15. We were requested to require the measurement of turbidity regularly (presumably more than once/day); to monitor for metals if a turbidity plume is observed; and to monitor during significant storm events; after flood events; daily monitoring in the afternoons; and sediment basins monitored immediately prior to discharge.

Response:

Table 1 has been revised. Additionally, no water will be discharged to the lake other than the initial dewatering between the cofferdams and discharges from the dewatering wells.

16. A specific recommendation was made to require independent monitoring and inspections during dredging and long term to ensure that metals remain in the disposal facilities.

Response:

Each plan requirement (#36, 37 and 38) has been more fully described so they can be better understood. Briefly, the requirement for a Construction Quality Assurance Plan will ensure that the project is constructed correctly. It provides a system of assurances, such as monitoring, contingency plans, qualifications, oversight and other verifications so that we know the work will be done correctly.

17. A comment was made that the self-monitoring and self-reporting conditions were not rigorous enough and do not provide sufficient documentation. These data should be made available to the public.

Response:

See response to question 16. Most, if not all written information DEQ has about this project is available to anyone through a public records request.

18. If metals were to be released and re-contaminate beaches down river that have been previously cleaned up it would be an expensive burden on the public.

Response:

See response to question 10.

19. Periodic cap inspections should include detection of cracks and subsidence and quarterly monitoring of down gradient monitoring wells.

Response:

The project no longer relies on features that require long term maintenance other than the lakebed liner.

20. A Quality Assurance/Quality Control Plan should be developed to ensure that proper construction techniques and materials are used during construction of the disposal facilities.

Response:

Disposal facilities are no longer part of the project.

21. DEQ should require a fund to be established by the applicant so independent consultants can conduct long term monitoring.

Response:

The lakebed liner is the one remaining feature that requires long term maintenance. Certification condition #38 requires an Operating and Maintenance Plan and annual reports about the liner. We also requested that the Idaho Department of Lands (IDL) place a condition on their lakebed lease for this marina that would require proof that the lakebed liner was being maintained per DEQ's Operating and Maintenance Plan. IDL has responded favorably to this request.

22. The certification was not clear about how long the liners are supposed to last and how long the Operations and Maintenance Plan remains in effect.

Response:

DEQ will treat the lakebed liner as any other facility performing a vital function. As long as provisions in the O&M Plan are needed, the Plan will be followed. Details on the longevity of liners will be addressed as part of the Plan and Specification review and approval process.

23. A commenter thought it would be best to move the contaminated sediments out of the floodplain.

Response:

The Corps examined this alternative as part of their requirements. As a result, the applicant revised the application so that the most contaminated sediments will be removed to an approved commercial upland disposal facility. The rest of the sediments with limited contamination are being segregated and managed so they do not require additional protective measures. The test DEQ must meet in assessing if a certification can be issued is if there is a "reasonable assurance that the appropriate requirements of state water quality law" have been met. Given the revised application, the placement of Category 2 sediments and the addition of certification conditions, the test of "reasonable assurance" has been met.

24. Concern was expressed over the proliferation of small privately owned repositories as a result of this precedent setting action. EPA warned against such an outcome in their comments.

Response:

Numerous contacts and meetings were held with various stakeholders and agencies, including EPA, about the disposal of lake bed sediments. EPA did not request this project be denied and did not require alternative disposal procedures in their comment letter. Their cautioned approach is one we share, thus the tight controls on the project through our plan and specification review process, construction quality assurance plan and operating and maintenance plan.

25. The dump on Blackwell Island is ill-defined and that if garbage is encountered it should be assessed for hazardous material.

Response:

The dump boundaries are based on an extensive history of site investigations over the last twenty years of this and surrounding properties and aerial photos taken shortly after the City dump was closed. Since this is primarily a filling operation rather than digging, we don't anticipate encountering much garbage. Condition #40 requires that if any solid waste is encountered that it be hauled to an approved landfill. The landfill will determine if testing is necessary and what tests to run.

26. Plans developed for this project should be subject to public notice and comment.

Response:

See responses to questions 4 and 17.

27. DEQ's requirements for notification of a petroleum spill are too lax.

Response:

Condition 9 was taken from our rules at IDAPA 58.01.02.852.